however, very considerable improvements have been made, although the character and leading features have been retained—perhaps unwisely. The front has been raised, to its great advantage: its height, which before was 57 feet, is now 71 feet: the arrangement of the pilasters is different, and pedestals have been added to them. It is throughout executed in Portland stone. The flank, which before was but a collection of brick gables, is now also of stone, and has had character given to it.

The whole of the works have been executed by Messrs. William Cubitt, Plucknett, and Company.

A short time ago we conveyed a cynical foreigner over part of London, apparently with very little satisfaction to him, and certainly none to us, for he seemed to think, like many foolish people of our own country, that it would be admitting ignorance to appear surprised or pleased. The only exclamation of delight that escaped him was when, returning westwardly at night, we turned round and looked back on Piccadilly, with its broad causeway, tree shadowed, and the double range of bright lights taking a snake-like form, and stretching far away, farther than the eye could reach. And this certainly is a beautiful sight.

There is a curious letter extant, from the Board of Green Cloth to Sir Christopher Wren, telling him how that the King (William III.) had bought a number of lamps to light the road from Whitehall to Kensington, and that he was forthwith to erect a shed at Kensington, that they might be taken down and put away during the summer, ready for their Majesties' use in the next winter. The contrast is interesting.

ON THE BALANCE OF NATURAL FORCES CONSIDERED AS A SOURCE OF BEAUTY.

UNREMITTING study is necessary for the improvement of taste, and much depends on the education of the eye. The instinctive knowledge of objects derived from sight by the new-born lamb is beneficently bestowed as necessary to the safety of an animal designed to be comparatively independent from its birth; but the infant is destined to pass through a long period of helplessness, and is born without any power of instinctive perception of the nature of objects from vision. Whatever it learns from the use of its eyes is the result of comparison and experience, or, in other words, of reason; and this slow process is one of the means ordained by Providence to force upon man the continued exercise of his intellectual faculties from the earliest period of his existence. The difference between instinct and acquired knowledge is, that the first is received as complete as necessary and is incapable of extension: the other is the result of reason, and has no limit to its acquisition by education. The perception of beauty is the result of intellectual comparison; it cannot therefore be instinctive, and consequently it is peculiar to man. It is true that, in the humblest meaning of the word, brilliant colour is in the eyes of the infant or the savage beautiful, but that being an agreeable sensation produced on the mind through the medium of a mere sense, it does not express the meaning attached to beauty by a student of art. Much of what is deemed beautiful in form depends on the preservation of just balance between the sustaining forces and those which would cause the object to fall. To the perception of this we are first awakened by the mother's warning, "take care lest that fall:" our safety ever afterwards requires that we should be constantly alive to such indications of stability: it thus becomes a condition essential, in all objects we could continue to contemplate with satisfaction, that they should be steadily balanced, and it is one which constitutes an essential element of what the artist terms *repose*.

We have only to regard the casts of those magnificent monuments of Grecian sculpture, the Gladiator, the Discobolos, and the Apollo, all of which indicate a high state of action, to perceive the meaning of this assertion. In all of them the figure is represented at that instant of action where the balance of the body is perfect. Were it otherwise it would be impossible to gaze upon them with the satisfaction that every one feels in doing so. The artist's skill is displayed in the indications of motion conveyed by other means than overbalance; by the straining of muscles, and the intent expression of the features, attitude, &c.

The caricaturist, on the other hand, who seeks only to excite the imagination, indifferent to beauty, can express even more violent action with a few lines. It is only necessary for him to incline a figure greatly forward, and indicate something like the position of the limbs in running, to convey the idea of motion to any one. Perfect balance, then, or *repose*, in its technical sense, as regards form, will always distinguish *high art*, whereas overbalance is characteristic of low art or caricature.

But this power of estimating the balance of forces, or measuring sense, which we have attributed to the eye, and is capable of high cultivation, does not reside in the organ of sight, but in the muscular apparatus external to it, by which the eye is moved: it is truly a sixth sense, which conveys to our minds a perfect perception of the effort required to make the organ take any direction under the influence of the will. The eye must not only see, but it must move, and we must be as well acquainted with the distinct indications presented to the mind by vision and direction (or motion), in order to comprehend their meaning, as we must be with the alphabet and orthography to understand the meaning of the printed page. In both cases the knowledge is acquired by education and practice, through mental effort.

The sense of motion, or the measuring sense, is as capable as the other senses of sight, hearing, taste, smell, and feeling, of conveying peculiar agreeable sensations to the mind. As a musical note is to the ear, colour to the eye, cold or warmth to the touch, or sweetness to the taste, so are the regular succession or proportionate arrangement of visible objects—of musical notes or rhythmical repetitions, the sweep of flowing curves, softness, and smoothness of surface, swinging, rocking, or dandling,—all sources of gratification to the sense of motion, combined or uncombined with agreeable impressions on one of the other senses. An infant is delighted with the sight of a watch, but is in ecstasies when you move the bright object: a toy that does not move soon palls, and the most beautiful thing in a child's estimation is a firewheel. Motion, then, in addition to colour and brilliancy, may be deemed the full complement of elementary or instructive gratification to the human eye, considered as an organ possessed of two kinds of sense. But it is the same thing in respect of this sense whether the object moves or the eye, in tracing the outline of its form, and as the sense gradually becomes more cultivated a new kind of gratification begins to arise from the exercise of the measuring faculty connected with the sense of motion. This is expressed by the word proportion, and we often perceive very young children intently occupied in meting out with their eyes the regular succession or proportionate repetitions of the pattern of a carpet or wall paper.

If, then, motion be such a source of gratification as it thus appears in connection with vision, it is an important element of beauty. It is, therefore, necessary to inquire whether nature presents any constant and unmistakeable signs that can convey to our minds the idea that the object is or has been in motion. Does any line or curve exist so universally described by moving bodies that its very sight will be associated in our minds with the cause of that motion; for we know by experience, if we analyze our sentiments, that causality and intention are the chief sources of interest in all that we behold and admire as intellectual beings, for which reason the indications of causality must constitute no mean element of beauty in art as well as nature.

To investigate this subject we must first ascertain the causes of motion with which nature makes us acquainted as mere inhabitants of the earth. These we find to be very few, for if we except the heavenly bodies and the effects of earthquakes and volcanoes and such causes as are too minute, rare, or exceptional, to be taken into general account, only the vital forces of muscular action in animals and growth in vegetables, and those of wind and water, in addition to the power of gravity to which the others are subservient, ever produce motion in terrestrial objects.

Why, we ask, has perpetual motion never yet been discovered? Simply because gravitation is a force incessant in its operation, whereas every other power opposed to it, however great in its commencement, is finite: all other forces upon earth, therefore, ultimately yield to gravity sooner or later, and all motion communicated by them at length ceases under its influence.

It follows, therefore, that nearly all motion with which the inhabitants of earth are practically acquainted (unless we take into account other combinations of force only maintainable for a limited period, and the result of human contrivance), must be a compound effect of a power exceeding that of gravity at first, but gradually controlled by its influence. The exact perpendicular to the earth's surface is the only line in which this combination of forces will not produce a curve, and the slightest divergence from this line, every mathematician knows, will cause the object in motion to follow a certain well-ascertained and demonstrable deviation from that line, termed a parabola. This is one of those sections of the cone which are supposed to represent almost every form of regular curve we are acquainted with, including the circle, the ellipse, the hyperbola, catenary curve, volute, &c. Yet it would be easy to show that though all of these represent lines of motion or rest produced by the contention of two or more forces, they are of a nature seldom to be witnessed in the greater operations of nature, if we except the circle, which is generally an indication of rest or balanced forces, as seen in terminal flowers or fruits. Therefore none of these curves, save the parabola, could possibly represent the obligatory contention of gravity with any single force, by whatever cause produced, whether relatively weak or powerful, rapid or slow. A stone thrown, rises and falls in a parabola: water falls in the same curve: it is seen in the waving herbage as in the tall tree stooping to the storm. We distinguish it in the graceful bend of every flower-stalk, and recognise it in each angle of the knotted arms of the oak. The body of the fish, and the limbs of man and animals, all present sections of this incurvation in their rounded outline. Almost intuitively, therefore, the appearance of the parabola in any position is naturally associated in our minds with life or motion; consequently we do not wonder to find sections of it reversed and resembling an italic S designed on the palette of a celebrated painter, recorded as the line of beauty of Appelles. The anatomical investigation of the moving powers acting on the eyeball, too, will show that the eye itself ever tends to move in segments of the same curve; for the same Almighty Omniscience that created nature, having formed the human eye for its enjoyment, has bestowed this character upon its motions.

The line of reasoning pursued, the aim has been to prove that the education forced upon us by nature has rendered us highly sensitive as regards the stability of structures.

We have learned to estimate the influence of disturbing forces calculated to overthrow perfect balance, and traced their effect in producing curved lines, temporary or permanent, that indicate the direction taken by a moving body, under the combined compulsion of an impelling force and the counteraction of

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